REMARKS

Claims 17 and 19-22 are presented for consideration, with Claims 17, 19 and 20 being independent. Claims 17 and 19-22 have been amended. Support for the amendments can be found in the original specification including, for example, page 25, line 15 through page 26, line 16. As such, Applicant submits that no new matter has been added.

Claim 17 and 21-22 stand rejected under 35 U.S.C. §101 as allegedly not falling within one of the four statutory categories of invention. While Applicant does not concede the above-noted objection, in order to expedite prosecution of the application, Applicant has amended claim 17 to recite that the method is a computer-implemented method of rendering an image comprising a plurality of overlapping graphic objects. The computer includes a processor configured to implement the method and a computer readable storage medium to store the plurality of overlapping graphic objects. As such, Applicant submits that claim 17 is directed to a statutory process tied to another statutory category and/or transforms underlying subject matter to a different state or thing. In view of the amendments to the claims, this rejection is respectfully traversed. Claims 21 and 22 recite the same or equivalent features to those referred to above in regard to claim 17 as amended, either directly or by dependence. Accordingly, Applicant submits that claims 17, 21 and 22 as amended, for at least the reasons noted, satisfy the requirements of 35 U.S.C. §101

Claim 17, 19 and 20 stand rejected under 35 U.S.C. §103 as allegedly being obvious over Moore (U.S. Patent Application No. 2002/00150039) in view of Koyanagi (JP 2000-013601). Claim 21 and 22 stand rejected under 35 U.S.C. §103 as allegedly being obvious over

Moore and Koyanagi in further view of Okubo (JP 11-073516). These rejections are respectfully traversed.

Amended claim 17 recites, among other features, producing means for producing a list of non-intersecting edges from a list of input edges on a per-scan-line basis. The list of non-intersecting edges defines (a) a plurality of boundaries of a plurality of non-overlapping graphic objects that are visually equivalent to the plurality of overlapping graphic objects and (b) a color for each of the plurality of non-overlapping graphic objects. At least one non-intersecting edge replaces a plurality of overlapping input edges. The non-intersecting edge is shared by more than of the one non-overlapping graphic objects.

The Office Action relies on Moore to teach, *inter alia*, generating a list of input edges in accordance with a plurality of boundaries of the plurality of overlapping graphic objects. As acknowledged by the Examiner, however, Moore fails to teach producing a list of non-intersecting edges from the list of input edges on the per-scan-line basis.

The Office Action relies on Koyanagi to teach, *inter alia*, producing a list of non-intersecting edges from the list of input edges. Applicant submits, however, that Koyanagi is silent in regard to producing a list of non-intersecting edges, as set forth in claim 17 of the present invention. Koyanagi, in relation to Fig. 16, discusses receiving print data and converting the data using edge data and kind information of the object. *See*, for example, paragraphs [0031]-[0034] of Koyanagi. The binarization process disclosed in Koyanagi produces bitmap data of the input objects. This bitmap data is different than a list of non-intersecting edges, as set forth in claim 17 of the present invention.

This binarization process of Koyanagi uses edge data from the objects A and B. The process of Koyanagi is described with regards to Fig. 11, which shows an object A and an object B which are overlapping, with a part of object A being hidden by object B. Based on the edge data of the objects, a binarization process and bitmap output are performed for each object. See paragraph [0090].

Koyanagi is not seen, however, to disclose producing a list of non-intersecting edges from the list of input edges on a per-scan-line basis. Rather, Koyanagi overwrites data of the previous object and, thus, increases the processing burden on the system. *See* paragraph [0091]. Alternatively, Koyanagi may perform a correction process on overlapping objects. *See* paragraph [0094]. The corrected edge data is then supplied for binarization processing and outputting of a bitmap. *See* paragraph [0095] and Fig. 9.

In the present invention, the list of non-intersecting edges relates to both boundaries of objects and a color for each object. For example, an output edge list of non-intersecting edges may take the form of output (ERP) edge list [3]. The output edge list [3] represents objects 614' and 616', as shown in Fig. 5 of the current application, according to the edges of the non-overlapping and non-intersecting edges and a color associated with each the respective edges. *See*, for example, page 25, line 15, through page 26, line 16, of the current application. On the other hand, no color data is associated with edges in Koyanagi. Accordingly, Applicant submits that Koyanagi fails to teach or suggest producing a list of non-intersecting edges which defines (a) a plurality of boundaries of a plurality of non-overlapping graphic objects that are visually equivalent to the plurality of overlapping graphic objects and (b) a color for each of the plurality of non-overlapping graphic objects, as set forth in claim 17.

For at least the foregoing reasons, therefore, it is submitted that amended claim 17 is patentable over Moore and Koyanagi whether these documents are considered alone or in combination.

On page 6 of the Office Action, with regards to claims 21 and 22, the Examiner relies on Okubo to overcome certain deficiencies in the teachings of Moore and Koyanagi. Referring to claim 21, the Office Action appears to infer that Moore and Koyanagi do not expressly teach deriving from the active edges a list of corresponding output edges to include the non-intersecting edges, and refers to Okubo in this regard. Applicant submits, however, that Okubo fails to overcome the deficiencies in the teaching of Moore and Koyanagi. That is, Okubo fails to teach or suggest producing means for producing a list of non-intersecting edges from a list of input edges on a per-scan-line basis, wherein the list of non-intersecting edges defines (a) a plurality of boundaries of a plurality of non-overlapping graphic objects that are visually equivalent to the plurality of overlapping graphic objects and (b) a color for each of the plurality of non-overlapping graphic objects, as recited in amended independent claim 17.

Therefore, without conceding to the propriety of combining Moore, Koyanagi, and Okubo in the manner proposed in the Office Action, Applicant submits that such a combination still fails to teach or suggest Applicant's invention as set forth in claim 17. Accordingly, it is submitted that Applicant's invention as set forth in claim 17 is patentable over the cited art.

Claims 19 and 20 relate to an apparatus for rendering an image, and a computer readable medium storing a computer program, respectively, and have been amended along the same lines as claim 17. Claims 19 and 20 are therefore submitted to be patentable for at least the same reasons discussed above with regards to claim 17.

Accordingly, reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. §103 is respectfully requested.

Thus, it is submitted that Applicant's invention as set forth in independent claims 17, 19 and 20 is patentable over the cited art. In addition, dependent claims 21 and 22 set forth additional features of Applicant's invention. Independent consideration of the dependent claims is respectfully requested.

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

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